

UNITED STATES DISTRICT COURT  
WESTERN DISTRICT OF NEW YORK

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AMERICAN REF-FUEL COMPANY OF NIAGARA, LP,

Plaintiff,

-vs-

02-CV-814C(F)

GENSIMORE TRUCKING, INC.,

Defendant.

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Plaintiff American Ref-Fuel Company of Niagara, LP, moves *in limine* to strike the proffered testimony of Joseph F. Bieron, Ph.D, designated by defendant Gensimore Trucking, Inc., to testify as an expert witness at the jury trial now scheduled to commence on May 5, 2008. For the reasons that follow, plaintiff's motion *in limine* is denied.

**BACKGROUND**

The factual background of this action was discussed at length in this court's decision and order dated September 18, 2007 (see Item 88) granting in part and denying in part defendant's motion for summary judgment, and will be restated here only as necessary to the resolution of the present motion. Plaintiff seeks to recover for property damage sustained as the result of an explosion in a storage silo at plaintiff's "waste-to-energy" facility located in Niagara Falls, New York. The explosion occurred on August 31, 2000, while defendant was engaged in the process of delivering a chemical product called "Sorbalime," which is used by plaintiff in its air pollution control system.

Plaintiff claims that defendant is liable for the damage caused by the explosion because the Sorbalime it delivered was rendered unreasonably dangerous as the result

of improper blending of chemical components including activated carbon, elemental sulfur, and lime. Defendant claims that the explosion was not caused by any improper blending of components, but rather by a bad batch of highly volatile carbon supplied by a third-party, Caremeuse N.A.<sup>1</sup>

As discussed in the court's summary judgment ruling, the parties' positions as to the cause of the explosion are based primarily upon the opinions of their respective experts: Ara Nalbandian, a professional engineer retained by plaintiff, and Dr. Bieron, a chemistry professor retained by defendant. Briefly stated, Mr. Nalbandian's opinion is that the explosion "was caused by the non-homogenous and out-of specification mixture of Sorbalime supplied by Car[e]meuse and blended and delivered by Gensimore Trucking, Inc., to the American Ref-Fuel facility on August 31, 2000" (Item 96, Ex. 4 (Part 1), p. 8).<sup>2</sup> Dr. Bieron's opinion is that the carbon used as a component of the Sorbalime mixture had a much higher hydrocarbon content and volatility rate than it should have had, which greatly increased the explosive qualities of the product (see Item 62; see *also* Item 71, Att. 2).

In support of its motion to strike, plaintiff contends that Dr. Bieron is not qualified to offer an expert opinion as to the chemical integrity of the Sorbalime components since he is not a chemical engineer and has no particular expertise with respect to carbon, sulfur or lime. Plaintiff also contends that Dr. Bieron employed a flawed methodology to arrive

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<sup>1</sup>Caremeuse was previously named as a defendant in this action, but plaintiff's claims against Caremeuse were dismissed with prejudice by stipulation and order dated September 28, 2007, subject to Gensimore's rights under N.Y. Gen. Oblig. Law § 15-108 (see Item 90).

<sup>2</sup> Defendant has not sought a pretrial ruling as to the admissibility of Mr. Nalbandian's opinion.

at his opinion as to the cause of the explosion, rendering the opinion inadmissible under the requirements of *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993).

### **DISCUSSION**

The admissibility of expert testimony is governed by Federal Rule of Evidence 702, which provides:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods and (3) the witness has applied the principles and methods reliably to the facts of the case.

Fed. R. Evid. 702.

As an initial matter, the court's review of Dr. Bieron's *curriculum vitae* (Item 62), as well as his affidavit submitted in support of defendant's summary judgment motion (see Item 71, Att. 2), clearly indicates sufficient knowledge, skill, experience, training and education to qualify him as an expert in the areas of concern expressed in his reports and during his deposition in this matter—namely, the general reactive characteristics of the chemical components of Sorbalime, and the results of laboratory analysis showing the specific characteristics of the product delivered to plaintiff by defendant on August 31, 2000. Dr. Bieron is Professor Emeritus at Canisius College in Buffalo, having retired in 2004 after a long and distinguished academic and professional career. He received his Ph.D. in chemistry from the State University of New York at Buffalo in 1964, and began teaching at Canisius in 1966. Among other administrative duties during his tenure, he served as Dean of the College of Arts and Sciences from 1971-79, and as Chair of the

Chemistry Department from 1984-90, and again from 1994-97. He has also worked as a research chemist and consultant for the Occidental Chemical Company, and as a science advisor for the Food and Drug Administration. He has served as an officer and member of the American Chemical Society, and has received several academic and professional honors (including the Jacob F. Schoellkopf Medal for Achievement in Chemistry in 1993). He has authored or co-authored an impressive list of books and articles relating to the field of chemistry and chemical reactions, and has extensive experience in planning, development, funding and implementation of science-related educational programs.

In short, it cannot be seriously contended that Dr. Bieron does not possess the knowledge, skill, experience, training and education necessary to qualify him as an expert on the chemistry-related issues posed by defendant in its defense of the claims brought by plaintiff in this action. The fact that he is not a chemical engineer, and admits to no particular expertise with respect to the blending of carbon, sulfur or lime, is not of disqualifying concern. Dr. Bieron's proffered opinion pertains to general properties and principles related to the chemicals involved in the events at issue, not to any specific engineering aspects or blending procedures.

Accordingly, based on the information in the record, the court has little difficulty concluding that Dr. Bieron is qualified to testify as an expert in this matter, in accordance with Fed. R. Evid. 702.

The court must next determine whether Dr. Bieron's proffered opinion is admissible under the requirements of *Daubert*. In that case, interpreting an earlier version of Rule 702, the Supreme Court established the "gatekeeping role" of the district courts as a means of ensuring that scientific expert testimony is both relevant and reliable. *Daubert*,

509 U.S. at 597; *see also Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137, 141 (1999) (holding that *Daubert* “applies not only to testimony based on ‘scientific’ knowledge, but also to testimony based on ‘technical’ and ‘other specialized’ knowledge.”). In fulfilling this function, the trial court should first determine whether the proffered expert testimony is relevant, *i.e.*, whether it has “any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence.” Fed. R. Evid. 401; *see Campbell ex rel. Campbell v. Metropolitan Property and Cas. Ins. Co.*, 239 F.3d 179, 184 (2d Cir. 2001); *see also Amorgianos v. Nat’l R.R. Passenger Corp.*, 303 F.3d 256, 265 (2d Cir. 2002). Next, the district court must determine “whether the proffered testimony has a sufficiently ‘reliable foundation’ to permit it to be considered[.]” *Campbell*, 239 F.3d at 184-85 (quoting *Daubert*, 509 U.S. at 597). This two-pronged relevance/reliability determination is committed to the sound discretion of the trial court. *Kumho Tire*, 526 U.S. at 158.

The “relevance” inquiry requires the court to decide whether the expert testimony will be helpful to the trier of fact in understanding or determining a fact in issue, *i.e.*, whether the expert’s testimony “fits” the facts of the case. *Daubert*, 509 U.S. at 594-95. “[T]he ‘helpfulness’ standard incorporated in [Fed. R. Evid.] 702 means that the expert’s opinion must *relate to* an issue that is actually in dispute and must provide a valid scientific connection to the pertinent inquiry.” Margaret A. Berger, *Procedural Paradigms for Applying the Daubert Test*, 78 MINN. L. REV. 1345, 1351 (1994). The “reliability” inquiry generally involves consideration of four non-exclusive factors: (1) whether the expert’s technique or theory can be or has been tested; (2) whether it has been subjected to peer

review; (3) the known or potential rate of error of the technique or theory when applied; and (4) the existence and maintenance of standards and controls—that is, whether the technique or theory is generally accepted by the scientific community to which it belongs. *See Daubert*, 509 U.S. at 593-94.

This test of reliability is “flexible,” meaning a court “*may* consider one or more” of these factors, but the list “neither necessarily nor exclusively applies to all experts or in every case. Rather, the law grants a district court the same broad latitude when it decides *how* to determine reliability as it enjoys in respect to its ultimate reliability determination.” *Kumho Tire*, 526 U.S. at 141-42 (emphases in original). Indeed, as the *Kumho Tire* opinion explains, the objective of the reliability inquiry

. . . is to make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field. . . . [T]he trial judge must have considerable leeway in deciding in a particular case how to go about determining whether particular expert testimony is reliable. That is to say, a trial court should consider the specific factors identified in *Daubert* where they are reasonable measures of the reliability of expert testimony.

*Id.* at 152.

The Advisory Committee Notes to the 2000 amendments to Fed. R. Evid. 702 point out that “[a] review of the case law after *Daubert* shows that the rejection of expert testimony is the exception rather than the rule.” *See also Clarke v. LR Systems*, 219 F. Supp. 2d 323, 332 (E.D.N.Y. 2002); *Travelers Property Cas. Co. v. General Elec. Co.*, 150 F. Supp. 2d 360, 364 (D.Conn. 2001). As stated by the Second Circuit, the trial court should only exclude the evidence “if the flaw is large enough that the expert lacks ‘good

grounds' for his or her conclusions." *Amorgianos*, 303 F.3d at 267 (quoting *In re Paoli R.R. Yard PCB Litig.*, 35 F.3d 717, 746 (3d Cir. 1994)).

This limitation on when evidence should be excluded accords with the liberal admissibility standards of the federal rules and recognizes that our adversary system provides the necessary tools for challenging reliable, albeit debatable, expert testimony. As the Supreme Court has explained, "[v]igorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence."

*Id.* (quoting *Daubert*, 509 U.S. at 596; citing with approval Jack B. Weinstein & Margaret A. Berger, *WEINSTEIN'S FEDERAL EVIDENCE* § 702.05[3], at 702-76).

With these general principles in mind, the court turns its consideration to plaintiff's *Daubert* challenge in this case. With respect to relevance, there can be no question that Dr. Bieron's proffered testimony as to the cause of the silo explosion would have a tendency to make the existence of facts of consequence more probable or less probable than it would be without the testimony. His opinion that the volatility of the carbon component of the Sorbalime mixture delivered to plaintiff on August 31, 2000 was a substantial factor in causing the explosion certainly relates to the crucial issue in dispute, and provides a valid scientific connection to the pertinent inquiry to be undertaken by the jury.

The primary focus of plaintiff's motion is the reliability of the methodology employed by Dr. Bieron to formulate his opinion. According to plaintiff, there were 83 samples of Sorbalime collected and tested after the explosion, and only one of these samples—Sample No. 7—was found to have a high volatility rate. Yet, Dr. Bieron based his opinion as to the carbon's volatility on this one sample, and he did not conduct any testing of his own or provide any peer review literature or other validation materials to support his theory that the

high volatility of the carbon was a substantial factor in causing the explosion. According to plaintiff, this renders Dr. Bieron's opinion unreliable under the rigors of *Daubert*.

In response, defendant points out that Dr. Bieron's opinion was based upon his review of the laboratory analysis of the Sorbalime samples collected by plaintiff, which reveals that only 12 of the 83 samples were actually analyzed (see Item 96, Ex. 4 (Part 2), p. 20). Defendant also notes that plaintiff's expert witness, Mr. Nalbandian, reported the results of Sample No. 7 as an indication that the volatility content of the carbon may have been a contributing cause of the explosion (see Item 96, Ex. 4 (Part 1), p. 8), and that two of plaintiff's witnesses, Stephen Goff and Randolph Bayer, made similar references and concessions during their deposition testimony (see *id.*, Ex. 2, pp. 33-34; Item 98, Ex. A, pp. 49-50).

Regardless of whatever bearing these "concessions" might ultimately have on the causation issues raised by the parties, upon review of these materials it is apparent that the "methodology" utilized by Dr. Bieron in arriving at his opinion about carbon volatility was derived in large part from the same sampling results which Mr. Nalbandian relied upon to formulate his opinion about the homogeneity of the mixture. Given Dr. Bieron's considerable experience in chemical analysis, the court cannot find that his interpretation of these laboratory results was flawed while allowing Mr. Nalbandian, and for that matter Mr. Bayer and Mr. Goff, to testify about causation based, at least in part, upon a similar interpretation of the same data. Rather, in the court's view, the ordinary devices of "vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof" provide the appropriate framework for testing the reliability of these proffered expert opinions.



Based on this analysis, and upon consideration of the materials made available by way of plaintiff's motion *in limine* in light of the record as a whole, the court finds that Dr. Bieron is qualified to testify as an expert witness in this case, and that his proffered testimony is both relevant and reliable under the requirements of *Daubert* and Rule 702.

**CONCLUSION**

For the foregoing reasons, plaintiff's motion *in limine* (Item 96) is denied.

So ordered.

\s\ John T. Curtin  
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JOHN T. CURTIN  
United States District Judge

Dated: May 2, 2008  
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